

REMARKS

Claims 1 and 3-14 are pending in this Application. Claim 2 has been previously canceled without prejudice. In the Office Action mailed December 2, 2005, the Examiner rejected Claims 1 and 3-14 under 35 U.S.C. § 102(b) as anticipated by or, in alternative, under 35 U.S.C. § 103(a) as obvious over Gebhardt (U.S. Patent No. 3,782,985), Onan et al. (U.S. Patent No. 5,383,521), Groppo Jr. et al. (U.S. Patent No. 5,817,230), or Sakai et al. (U.S. Patent No. 4,933,013). Claims 1 and 3-14 have also been rejected under 35 U.S.C. § 103(a) as being obvious over Gebhardt, Onan et al., Groppo Jr. et al., or Sakai et al. in view of McOnie et al. (U.S. Patent No. 5,562,832), Blankenburg et al. (abstract) and Otte-Witte (abstract). Examples 1 through 4 are objected to under 35 U.S.C. § 112, first paragraph. Claims 1 and 3-14 are rejected under 35 U.S.C. § 112, first paragraph and under 35 U.S.C. § 132.

Applicant respectfully address the Examiner's rejections and objection below.

Claims Rejection - 35 U.S.C. § 102(b)/35 U.S.C. § 103(a)

On page 2 of the Office Action, the Examiner rejected Claims 1 and 3-14 as being anticipated by or, in the alternative, obvious Gebhardt, Onan et al. (herein "Onan"), Groppo Jr. et al. (herein "Groppo"), or Sakai et al. (herein "Sakai"). Applicants respectfully submit amended Claim 1, amended to include a dewatering aid "comprising a particulate material in an effective quantity and particle size to maintain porosity in the slurry and the product to be coated during

dewatering and thereby permit dewatering of the slurry through the product to be coated . . . wherein a first portion of the particulate material has a particle size of about 10 microns or less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and second portion of the particulate material has a larger particle size of about 100 microns maximum size in the amount of 10 to 60 wt.% of the formulation based on total dry ingredients." [Emphasis depicts amended text.] Support for amended Claim 1 may be found throughout the originally-filed specification, at e.g., paragraphs [0032]-[0035]. Applicants further submit that amended Claim 1 overcomes rejections under 35 U.S.C. § 112, first paragraph and 35 U.S.C. § 132.

Applicants submit in view of amended Claim 1 that neither Gebhardt, Onan, Groppo or Sakai alone or in combination anticipate or make obvious Applicants' amended Claim 1. First, with respect to Gebhardt, the Examiner states that "Gebhardt teaches a composition comprising fly ash cenospheres." Applicants agree with this statement and point out that Gebhardt specifically teaches such cenospheres as being of only a specific "diameter from about 50 μ to 125 μ " (Col. 2, ll. 62-64). In addition, Gebhardt specifically teaches that use of smaller particles of raw, carbon-free fly ash that are "less than 50 μ in diameter" (Col. 2, ll. 53-55) are unsuitable and therefore not used in the Gebhardt's concrete. (see, e.g., Col. 3, ll. 62-75) Accordingly, Applicants submit that Gebhardt does not teach or suggest, expressly or inherently, each and every element of amended Claim 1, such as "a first portion . . . has a particle

size of about 10 microns or less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and second portion . . . has a larger particle size of about 100 microns maximum size in the amount of 10 to 60 wt.% of the formulation based on total dry ingredients." As such, amended Claim 1 is not anticipated by Gebhardt. Moreover, Applicants point out that Gebhardt does not teach the claimed invention as a whole, including two particulate portions each in an effective quantity and particle size to maintain porosity in a slurry and a product to be coated, or to add the two particulate portions to a product, nor to aid in dewatering the slurry. In fact, Gebhardt teaches only admixing specific sized cenospheres of 50 μ to 125 μ in diameter to concrete and water (Col. 3, ll. 31-34) to form a concrete of "extremely low porosity" that provides "absolutely no detectable seepage" (e.g., Col 4, ll. 72 to Col. 5, ll. 3). As such, the Gebhardt concrete is entirely contrary and non-analogous to Applicants' claimed invention. One of ordinary skill would never look to Gebhardt's virtually non-porous concrete specifically made with no detectable seepage to provide a "dewatering aid for dewatering a cementitious slurry coating on a product" as claimed in the instant Application. In fact, the Examiner is in agreement with this when stating on page 5 of the Office Action that Gebhardt does not "teach the intended use" of Applicants' claimed invention. In addition, because Gebhardt teaches away from the claimed invention and does not teach Applicants' claimed invention as a whole, Gebhardt is unpredictable with regards to Applicants' amended Claim 1. Applicants point out that some predictability is required for a showing of obviousness. Furthermore, a teaching

away from Applicants' claimed invention and an inability to teach or suggest Applicants' claimed invention as a whole means that there is no suggestion or motivation, either in the Gebhardt reference itself or to one of ordinary skill in the art, to modify Gebhardt in order to provide amended Claim 1 or to combine Gebhardt with any other reference, including Onan, Groppo, or Sakai. For this reason, there is no reasonable expectation of any success. In view of all factual information, amended Claim 1 and all claims depending therefrom are not anticipated by nor as a whole obvious over Gebhardt.

With respect to Onan, the Examiner states, "Onan teaches a Class C fly ash composition comprising an average particle size of 9 microns and maximum particle size of 36 microns anticipating applicants claims." Applicants respectfully point out that Onan specifically teaches only a single particulate portion of particles (fly ash) of "diameters no larger than about 36 microns" (Col. 4, l. 18; Claims). In addition, Onan specifically teaches the fly ash at a claimed range contrary to that provided in the instant Application (see table II, in which calcium oxide is 30 wt.% and magnesium oxide is 6.2%) and the suitability of a very different component amount of the single particulate portion of fly ash that is "about 65% to about 80% by weight of the composition" (Col. 5, ll. 20-21). Accordingly, Applicants submit that Onan does not teach or suggest, expressly or inherently, each and every element of amended Claim 1, such as a dewatering aid that includes "about 25-60 wt % silica, about 10-30 wt % Al_2O_3 , about 5-25 wt % Fe_2O_3 , about 0-20 wt % CaO , about 0-5 wt % MgO , wherein a first portion of the particulate material has a particle size of about 10 microns or

less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and a second portion of the particulate material has a larger particle size of about 100 microns maximum size in the amount of 10 to 60 wt.% of the formulation based on total dry ingredients." As such, amended Claim 1 is not anticipated by Onan. Moreover, Applicants points out that Onan does not teach the claimed invention as a whole, including two particulate portions each in an effective quantity and particle size to maintain porosity in a slurry and a product to be coated, or to add the two particulate portions to a product, nor to aid in dewatering the slurry. In fact, Onan teaches only a set delaying cementing composition of fine particles of no greater than 36 microns combined with a dispersing agent, a set-delaying additive and water (Col. 6, ll. 43-58) to form a "hard substantially impermeable cementitious mass" (Col. 6, l. 60). As such, the Onan reference is entirely contrary and non-analogous to Applicants' claimed invention. One of ordinary skill would never look to Onan's impermeable concrete mass to provide a "dewatering aid for dewatering a cementitious slurry coating on a product" as claimed in the instant Application. In fact, the Examiner is in agreement with this when stating on page 5 of the Office Action that Onan does not "teach the intended use" of Applicants' claimed invention. Because Onan teaches away from the claimed invention by teaching an entirely different claimed range of components and does not teach Applicants' claimed invention as a whole, Onan is unpredictable with regards to Applicants' amended Claim 1. Applicants point out that some predictability is required for a showing of obviousness. Furthermore, a teaching away from

Applicants' claimed invention and an inability to teach or suggest Applicant's claimed invention as a whole means that there is no suggestion or motivation, either in the Onan reference itself or to one of ordinary skill in the art, to modify Onan in order to provide amended Claim 1 or to combine Onan with any other reference, including Gebhardt, Groppo, or Sakai. For this reason, there is no reasonable expectation of any success. In view of all factual information, amended Claim 1 and all claims depending therefrom are not anticipated by nor as a whole obvious over Onan.

With respect to Groppo, the Examiner states that the reference "teach that a final fly ash composition has fly ash particles that are less or equal to 45 microns anticipating applicants' claims." Applicants respectfully disagree with such a statement and point out that Groppo specifically teaches very little about the composition except a method to "remove all the coarse carbon particles greater than 75 microns" (Col. 2, ll. 63-65; Claims). Groppo does not specifically teach a dewatering aid of Applicants' claimed range nor any claimed range nor the component amounts of their fly ash composition. Applicant respectfully request the Examiner to point to such a teaching should it exist. Accordingly, Applicants submit that Groppo does not teach or suggest, expressly or inherently, each and every element of amended Claim 1, such as "a particulate material in an effective quantity and particle size to maintain porosity in the slurry and the product to be coated during dewatering and thereby permit dewatering of the slurry through the product to be coated" and "wherein said dewatering aid comprises about 25-60 wt % silica, about 10-30 wt % Al_2O_3 , about

5-25 wt % Fe_2O_3 , about 0-20 wt % CaO , about 0-5 wt % MgO , wherein a first portion of the particulate material has a particle size of about 10 microns or less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and a second portion of the particulate material has a larger particle size of about 100 microns maximum size in the amount of 10 to 60 wt.% of the formulation based on total dry ingredients." As such, amended Claim 1 is not anticipated by Groppo. Moreover, Applicants points out that Groppo does not teach the claimed invention as a whole, including two particulate portions each in an effective quantity and particle size to maintain porosity in a slurry and a product to be coated, or to add the two particulate portions to a product, nor to aid in dewatering the slurry. In fact, Groppo teaches nothing about particulate portions, suitable particle size, porosity, formation of a slurry, coating of a product, or dewatering the slurry. As such, one of ordinary skill would never look to Groppo's "method of improving the pozzolanic character of fly ash" (Abstract; Col. 1, ll. 5-6) to provide a "dewatering aid for dewatering a cementitious slurry coating on a product" as provided in the instant Application. The Examiner is in agreement with this when stating on page 5 of the Office Action that Groppo does not "teach the intended use" of Applicants' claimed invention. Because Groppo teaches nothing with regard to Applicants' claimed invention and certainly does not teach Applicants' claimed invention as a whole, Groppo is unpredictable with regards to Applicants' amended Claim 1. Applicants point out that some predictability is required for a showing of obviousness. Furthermore, the inability of Groppo to teach or

suggest Applicant's claimed invention as a whole means that there is no suggestion or motivation, either in the Groppo reference itself or to one of ordinary skill in the art, to modify Groppo in order to provide amended Claim 1 or to combine Groppo with any other reference, including Gebhardt, Onan, or Sakai. For this reason, there is no reasonable expectation of any success. In view of all factual information, amended Claim 1 and all claims depending therefrom are not anticipated by nor as a whole obvious over Groppo.

With respect to Sakai, the Examiner states the Sakai reference "teach a fly ash for a cement composition, said fly ash generally has an average particle size from 10 to 30 microns (see col. 3, lines 48-50) anticipating applicants claims." Applicants respectfully point out that Sakai does not teach or suggest, explicitly or inherently, each and every aspect of Applicants' claimed invention. For example, Sakai teaches a composition that requires ultra-fine particles (less than 3 microns) of 5 to 40 parts combined with a hydraulic material (with particles of 10-30 microns) that is 60 to 95% parts by weight. (Col. 6, ll. 4-6; Claims). Sakai does not teach about the composition except that the hydraulic material is burned "until vanishing of free CaO" (Col. 2, l. 63) or "free CaO disappears or vanishes" (Col. 3, ll. 24) and, thus, explicitly teaches away from the hydraulic material having any CaO. Sakai also teaches nothing about a dewatering aid having Applicants' claimed range and does not teach or suggest any component amounts of any composition. Accordingly, Applicants submit that Sakai does not teach or suggest, expressly or inherently, each and every element of amended Claim 1, such as "a particulate

material in an effective quantity and particle size to maintain porosity in the slurry and the product to be coated during dewatering and thereby permit dewatering of the slurry through the product to be coated" and "wherein said dewatering aid comprises about 25-60 wt % silica, about 10-30 wt % Al_2O_3 , about 5-25 wt % Fe_2O_3 , about 0-20 wt % CaO , about 0-5 wt % MgO , wherein a first portion of the particulate material has a particle size of about 10 microns or less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and a second portion of the particulate material has a larger particle size of about 100 microns maximum size in the amount of 10 to 60 wt.% of the formulation based on total dry ingredients." As such, amended Claim 1 is not anticipated by Sakai. Moreover, Applicants points out that Sakai does not teach the claimed invention as a whole, including two particulate portions each in an effective quantity and particle size to maintain porosity in a slurry and a product to be coated, or to add the two particulate portions to a product, nor to aid in dewatering the slurry. In fact, Sakai teaches the absence of porosity and teaches including very little water because it is imperative that Sakai's composition forms "a hardened mass" (e.g., Col. 3, l. 50-52; Col. 6, ll. 51-53). As such, the Sakai reference is entirely contrary and non-analogous to Applicants' claimed invention. One of ordinary skill would never look to Sakai's hardened mass to provide a "dewatering aid for dewatering a cementitious slurry coating on a product" as claimed in the instant Application. The Examiner is in agreement with this when stating on page 5 of the Office Action that Sakai does not "teach the intended use" of Applicants' claimed invention.

Because Sakai does not teach or Applicant's components or Applicant's claimed range of components and teaches away from having CaO, Sakai does not teach Applicants' claimed invention as a whole. Thus, Sakai is unpredictable with regards to Applicants' amended Claim 1 and Applicants point out that some predictability is required for a showing of obviousness. Furthermore, a teaching away from Applicants' claimed invention and an inability to teach or suggest Applicant's claimed invention as a whole means that there is no suggestion or motivation, either in the Sakai reference itself or to one of ordinary skill in the art, to modify Sakai in order to provide amended Claim 1 or to combine Sakai with any other reference, including Gebhardt, Groppo, or Onan. For this reason, there is no reasonable expectation of any success. In view of all factual information, amended Claim 1 and all claims depending therefrom are not anticipated by nor as a whole obvious over Sakai.

Applicants further submit that because Applicants claimed invention is not obvious over Gebhardt, Onan, Groppo or Sakai for the reasons set forth above and none of these cited references teach Applicants' claimed invention as a whole, there is no suitable reason to combine such references with others, such as McOnie et al., Blankenburg, et al. or Otte-Witte. Applicants have factually shown above that each of the cited references, Gebhardt, Onan, Groppo or Sakai, teach away from and are unpredictable with respect to Applicants claimed invention. As previously pointed out, some degree of predictability is required for a showing of obviousness. With an absence of predictability, no showing of the invention as a whole or in

part, and by teaching away relevant aspects of Applicants' claimed invention, it is clear that none of these references (Gebhardt, Onan, Groppo or Sakai) provide any suggestion or motivation to be modified in order to provide Applicants' claimed invention. Applicants have found none and respectfully request the Examiner to point to any should they exist. Furthermore, because none of these references (Gebhardt, Onan, Groppo or Sakai) "teach the intended use" of Applicants' claimed invention of a dewatering aid, as stated by the Examiner on page 5 of the Office Action, it is unreasonable to suggest that one of ordinary skill in the art would look to any of these references to understand a necessary essential function or utility of the subject matter of Applicants claimed invention, which is another requirement for a showing of obviousness. As Applicants have pointed out in their previous remarks and as agreed upon by the Examiner, none of these cited references (Gebhardt, Onan, Groppo or Sakai) teach an essential function of Applicants claimed invention or the utility of the subject matter. For example, and as previously pointed out, none of the cited references teach "a particulate material in an effective quantity and particle size to maintain porosity in the slurry and the product to be coated" and none of the cited references teach a particulate material "to be coated during dewatering and thereby permit dewatering of the slurry through the product to be coated." Therefore, one of ordinary skill in the relevant art would never look to Gebhardt, Onan, Groppo or Sakai for such teachings, nor would one of ordinary skill in the art ever be motivated to combine these references with any other references, such as McOnie et al., Blankenburg, et al. or Otte-Witte, in

order to provide Applicants' claimed invention. Applicants can find no suggestion or motivation for doing so in Gebhardt, Onan, Groppo or Sakai and there is certainly no evidence provided by the Examiner that one of ordinary skill in the art would be motivated to combine the teachings of Gebhardt, Onan, Groppo or Sakai with any other reference, particularly in the absence of any relevant teachings and the absence of any suggestion to do so in these references. For these reasons, there is no reasonable expectation of any success. Accordingly, Applicants submit that amended Claim 1 and all claims depending therefrom are not obvious over Gebhardt, Onan, Groppo or Sakai alone or in combination with McOnie et al., Blankenburg, et al. or Otte-Witte. As such, Applicants request entry and allowance of amended Claim 1 and all claims depending therefrom, namely Claims 3-14.

Objection to Specification

On page 6 of the Office Action, the Examiner has objected to Examples 1 through 4 under 35 U.S.C. § 112, first paragraph, for not clearly enabling one to make or practice the invention. Applicants respectfully point out that the Examiner has not provided a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure. Applicants point out that amended Claim 1 is drawn to " a first portion of the particulate material has a particle size of about 10 microns or less in the amount of about 5 to 30 wt.% of the formulation based on total dry ingredients and a second portion of the particulate material has a larger particle size of about 100 microns maximum size in the amount of 10 to 60

wt.% of the formulation based on total dry ingredients.”
Support for amended Claim 1 may be found in the Specification at paragraphs [0032]-[0035] in which the same claimed composition is provided and further as exemplified in Examples 1-4 (see page 9 of the originally filed Application). Applicants have, thus, provided a teaching of the manner and process of making and using an invention in terms that correspond in scope to those used in describing and defining the subject matter sought to be patented. Accordingly, Applicants submit that Examples 1-4 are in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph and respectfully request the objection be removed.

***Claims Rejection - 35 U.S.C. § 112, second paragraph/
35 U.S.C. § 132***

On page 5 of the Office Action, the Examiner rejected Claims 1 and 3-14 for not providing support for the invention now claimed. Applicants respectfully submit that amended Claim 1, as provided in the listing of claims beginning on page 3 of this paper, is well supported by the specification as originally filed, see, e.g., para. [0032]-[0035] and Examples 1-4. Applicants further submit the Examiner's statement, "Applicants do not have literal support for 'a particle size of about 10 microns or less' for the first portion nor do they have literal support from their specification for the second portion of '100 microns or less'," is unfounded. Applicants respectfully point out that in paragraph [0033] of the originally-filed specification, the first portion is described as "preferably has about a 10 micron maximum size." The second portion is

described in para. [0032] as "'larger' size particles of fly ash with preferably about a 100 micron maximum size." Applicants do not find that describing a maximum size to be different than indicating that the particle may be that size or less. Applicants have also amended Claim 1 to include "about 10 microns" as requested by the Examiner. Applicants respectfully submit that amended Claim 1 overcomes the rejection under 35 U.S.C. § 112, second paragraph and Applicants respectfully submit that amended Claim 1 overcomes the rejection under 35 U.S.C. § 132. .

On page 7 of the Office Action, the Examiner stated that support for "but an average particle size of greater than 10 microns" as presented in Claim 10 could not found in the specification. Applicants respectfully point out that the specification clearly discloses two components of fly ash, one of which is larger than the other. Because the first portion is 10 microns or less, it goes without saying that the second portion would typically be greater than 10 microns. Accordingly, Applicants submit that there is sufficient support for "but an average particle size of greater than 10 microns" as presented in Claim 10 and thus such language is not new matter.

Claims Rejection - 35 U.S.C. § 112, second paragraph

On page 7 of the Office Action, the Examiner rejected Claims 1 and 3-14 for not setting forth subject matter regarded as the invention. Applicants point out that amended Claim 1 provides a definite distinction between the first portion and the second portion by including "a second portion of the particulate material has a larger particle size of about 100

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microns maximum size." Accordingly, amended Claim 1 is believed to properly set forth subject matter regarded as the invention. Applicants respectfully submit that amended Claim 1 overcomes the rejection under 35 U.S.C. § 112, second paragraph.

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CONCLUSION

Applicant respectfully submits that the Application is in condition for allowance and earnestly seeks such allowance of Claims 1 and 3-14. Should the Examiner have questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact Applicants' representative at 214.999.4330. Applicants, through their representative, stand ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 131279.1020. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicant respectfully requests that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.



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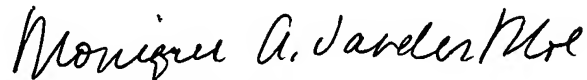
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This is intended to be a complete response to the Office
Action mailed December 2, 2006.

**Please direct all correspondence to the practitioner listed
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